

# ANCHORAGE AMATEUR RADIO CLUB

PRESIDENT FRED WEGMER  
KL7HFM 274-3464  
CLUB PHONE: 345-0719

## HAPPY NEW YEAR

JANUARY 1992 JANUARY 1992 JANUARY 1992

PROGRAM PROGRAM PROGRAM

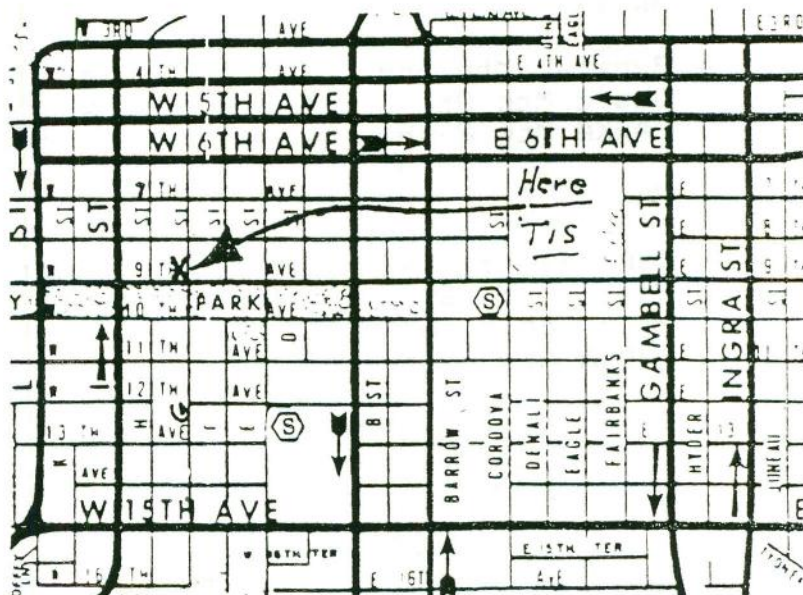
"The SOUTH PACIFIC - TONGA - FIJI - VANI VUTU (?)sp"

Harry Mitchell - KL7MZ and Marge Mitchell - AL7JW have sailed the South Pacific for 10 years and will be sharing their experiences with us. Sounds SUPER !!

January 3rd, 1992 January 3rd, 1992

## NEW MEETING PLACE

The NEW MEETING PLACE is the 1st United Methodist Church located at the Northwest corner of 9th Ave and G St. Parking is on the North side of Bldg and we enter from the North through a single door and straight into Meeting room. Same time 7:00 PM



EDITOR-HARVEY ROOKUS - NL7DK  
3310 CHECKMATE DR. ANCHORAGE  
ALASKA 99508 (907) 333-4693

## Calendar 1991-1992

January 1992

GENERAL MTG 3rd  
BOARD MTG 8th  
PARKA MTG 25th

February

General Mtg 7th  
Board Mtg 12th  
Fur Rondy - Grand Prix  
- Dog Races  
Iditarod Sled Dog Races  
PARKA Mtg 29th

March

General Mtg 6th  
Board Mtg 11th  
PARKA Mtg 28th

April

General Mtg 3rd  
Board Mtg 8th  
PARKA Mtg 25th

May

General Mtg 1st  
Board Mtg 13th  
Walk For Hope  
PARKA Mtg 30th

June

General Mtg Election 5th  
Board Mtg New/Old 10th  
Field Day 27/28 Prov. Hosp  
PARKA Mtg. 27th  
Motley Picnic 26-27-28  
(Byers Lake)

July 1992

General Mtg 3rd  
Board Mtg 8th  
PARKA Mtg 25th

August

General Mtg 7th  
Board Mtg 12th  
PARKA Mtg 29th

September

General Mtg 4th  
Board Mtg 9th  
Flea Market/Hamfest 26/27  
PARKA Mtg ???

October

General Mtg 2nd  
Board Mtg 14th  
PARKA Mtg 31st

November

General Mtg 6th  
Board Mtg 11th  
PARKA Mtg 28th

December

Club Christmas Party 4th  
Board Mtg 9th  
PARKA Mtg 28th

The general meeting was held on December 6, 1991. The meeting was also our annual Christmas party with setup beginning at 5:00 PM and eating beginning at 6:30 PM. The meeting was well attended, and anybody who was ANYBODY was there.

At about 7:00, President Fred Wegmer KL7HFM brought one piece of business before the general membership--that of adding a \$15,000.00 endowment to Alaska Pacific University to the money already endowed. A short discussion followed. The general membership voted for the further endowment.

A wonderful time was had by all. Turkeys, hams and pop were donated by the club, with the rest of the food being potluck. (Lil knows from personal experience that all the food was good!)

The PARKAs provided some "homebrew" entertainment with their versions of "Jingle Bells" and "The 12 Days of Christmas", followed by a short sing-a-long. (Great performance, ladies!!)

Much to the great joy of the youngsters, Santa was in supreme attendance, bearing gifts to all the good girls and boys. (Thanks to Matt Mannhardt, George and Eva Stevens, Arlene Steward, and Dianne Hammer for all their help to Santa with gifts, etc.)

Special thanks to Dianne for all the decorations and "cookie bags". She put a lot of time and effort into them. Also thanks to Lynn Duncan for helping Dianne with the decorations and bags.

The coveted Manure Spreader Travelling Trophy was awarded to Gene LaHaie NL7YI for obliging us by spreading more manure than any other ham in the area. Thanks, Gene for all those calls to KL7BGZ that helped win you the award. Enjoy it in fun and laughter.

Lil didn't rig the Christmas raffle well enough because she didn't win anything. First prize went to Mike Spurgeon WD0ETG (sure hope I got your callsign right Mike). Second prize went to Allen Winterstein KL7IEI of Bethel. The third prize went to Joel Ballek ~~WHAT~~ a brand new ham up in North Pole. Congratulations to all the winners.

Thanks to all who helped to make the Christmas party a success. Thirty lashes with a wet noodle to me if I forgot anybody. And special thanks to the Good Lord for creating the Christmas season through the birth of His Son Jesus Christ.

Respectfully Submitted,



Lil Marvin NL7DL

## AARC Boardmeeting Minutes 12-11-91

The AARC boardmeeting was opened at 7:05PM at the Hope Cottage Building. The following boardmembers were in attendance: KL7HFM, KL7YF, NL7SU, AL7BB, AL7IM, KL7FHX, AL7NK, NL7DL, AL7ID, KL7HO. Also in attendance were the following: KL7HFQ, NL7NN, KL7IZZ. According to KL7FHX, our club treasurer, we have about \$5000.00 in the checking account.

The VHFcommittee is considering moving the remote receiver to get it away from the intermod being caused by a certain general broadcasting transmitter. The idea is only in the early planning stage at this point. AL7ID will bring the problem up with the general broadcasting station's manager.

The packet bulletin board has been moved to the home of John Lawson NL7NC. A big thanks to you, John!!

Fred KL7HFM visited the First United Methodist Church as a possible new site for next year's club meetings, beginning with the January meeting. The church is located on 9th Ave near downtown. It has 2 large rooms (about 1200 square feet), and a small kitchen, plus a large parking lot. It is more centrally located for more members. The terms of cost will be about the same as we currently have. Members will be notified by phone if we move our meeting location. Stay tuned.

Joan AL7NK has presented 3 options regarding changes in the life membership program:

## OPTION 1

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age 55 to 59	\$225.00
age 60 to 64	\$200.00
age 65+	\$175.00

## OPTION 2

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age 55 to 64	\$225.00
age 65+	\$200.00

## OPTION 3

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age 65+	\$200.00
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The board will do a little further research in the matter and will then present the options to the general membership for discussion and a vote. Again, stay tuned.

The following budget committee was formed: Fielder, KL7FHX; Fred, KL7HM; and Joan, AL7NK. They hope to have a tentative budget report for January.

The by-laws committee are currently reviewing the by-laws of other organizations as examples for making changes in our own by-laws.

The new by-laws will coincide with our articles of incorporation.

Mike WA7USX will run the by-laws through a scanner. They will then be put on a disk for reading and revision.

Arlene KL7HO reports that the club is now the proud owner of a fine red suit, one size fits all, to be used by a certain Mr. S. Claus at future club parties.

AL7ID is investigating a possible site for the UHF repeater way up on the Hillside.

The boardmeeting was closed at 8:15. Lil didn't have any more raffle tickets to sell so she let everybody go in peace.

P.S. For those of you who have discovered Lil's age through the KL7GNG bulletin board--IT'S A DANGED LIE!!!!

(Maybe) Respectfully Submitted

*Lil Marvin NL7DL*

	CALL	FROM	TO
ANCHORAGE			
DAVID L. BAILEY (19 YRS. OLD)		NO LICENSE	NOVICE
PETER G. BAILEY		NO LICENSE	NOVICE
DOUGLAS B. BAILY	WL7CDF	NOVICE	H.F. TECHNICIAN
BEVERLY J. BRONNER		NO LICENSE	N.C. TECHNICIAN
STEVEN E. BROWN	NL7US	TECHNICIAN	GENERAL
DAVID L. FILLEY		NO LICENSE	NOVICE
ROBERT R. GABEL		NO LICENSE	N.C. TECHNICIAN
CHARLES H. ILIFF		NO LICENSE	N.C. TECHNICIAN
WILLIAM J. MARKLEY		NO LICENSE	H.F. TECHNICIAN
JIM H. McDERMOTT	NL7ZH	N.C. TECHNICIAN	H.F. TECHNICIAN
DORIS J. MILLER		NO LICENSE	N.C. TECHNICIAN
DANNY R O'BARR		NO LICENSE	N.C. TECHNICIAN
DEBRA A. PONTIUS		NO LICENSE	H.F. TECHNICIAN
ROBERT N. PONTIUS		NO LICENSE	H.F. TECHNICIAN
LAJARLE M. SCOTT		NO LICENSE	NOVICE
PAUL M. SPATZEK		NO LICENSE	N,C, TECHNICIAN
MICHAEL L. SPURGEON	WAOETG	ADVANCED	AMATEUR EXTRA
PATRICIA Z. SPURGEON		NO LICENSE	N.C. TECHNICIAN
EVA C. STEVENS		NO LICENSE	N.C. TECHNICIAN
GEORGE W. STEVENS		NO LICENSE	N.C. TECHNICIAN
VINCENT M. WITHINGTON	NL7ZJ	N.C. TECHNICIAN	H.F. TECHNICIAN
LAWRENCE M. WHITING	WL7CCS	NOVICE	H.F. TECHNICIAN
WILLIAM A. WILLIAMSON III		NO LICENSE	N.C. TECHNICIAN
CORA L. WORSHAM		NO LICENSE	H.F. TECHNISIAN
BETHEL			
BIG LAKE			
BYERS LAKE			
EAGLE RIVER			
ANDY B. FYODOROV	WL7CDB	NOVICE	GENERAL
FAIRBANKS			
MICHAEL E. HAIR		NO LICENSE	N.C. TECHNICIAN
THOMAS J. HEALY	NL7ZS	H.F. TECHNICIAN	AMATEUR EXTRA
CURTIS E. JOHNSON	WL7CDD	NOVICE	H.F. TECHNICIAN
JUNEAU			
SOLDOTNA			
VALDEZ			
WASILLA			
WILLOW			

NOTE (N.C. TECHNICIAN=NO CODE TECHNICIAN)  
 (H.F. TECHNICIAN=TECHNICIAN WITH H.F. PRIVILEGES)  
 submitted by Roger Hansen, KL7HFQ, VEC Director)

Kenneth W. Hunt -  
3407 Wisconsin Street  
Anchorage, AK 99517

WB7OVU 243-8842

# RECEIVERS - RECEIVERS

BC-348 - 120VAC OPERATIONAL  
WITH MANUAL  
\$100.00

DRAKIE - SW-4A MINT CONDITION  
150.00

YEASLY - FRC-9600 60MHZ TO 960MHZ  
AM(N) AM(W) FM(N) FM(W) USB, LSB  
MINT COND. WITH MANUALS  
\$400.00

RACAL - RACK MOUNT CLEAN  
MULTI MOD -  
\$200.00

SWAH-270 TRANSCIVER, MANY EXTRAS  
PLUS SPARE TUBES & MANUAL.  
ALMOST MINT.  
\$400.00

INFO TECH - M-610 RTY SCOPE  
\$100.00

UNIVERSAL M-7000 MULTI MODE  
DECODER.  
\$500.00

HAMERLUND - SP-600  
\$150.00

GRUNDIG 1950 TABLE MODEL  
MW-SW - VERY GOOD SHAPE  
\$200.00

PLEASE CONSIDER THIS \*\*\* ANNOUNCEMENT \*\*\* FOR PUBLICATION

## SOUTH SANDWICH ISLAND DXPEDITION

1992 will see the most wanted VP8 fall to a team of ten experinced operators led by a group from the U.S.A. with previous Antarctic expedition experience. The team includes operators from Asia and Europe.

The team will travel to the Falkland Islands to board the transport ship March 14, 1992. The trip to South Sandwich will take 7 days with the operation starting on or about March 21 and lasting 14 days.

A contract has been signed with the ship and a \$20,000 deposit paid. All equipment and supplies are now stored aboard the ship and includes four complete HF stations with linear amps, 40-10m beams, 160-40m verticals, and three 4-kW generators. An all mode, all bands with RTTY and vhf operation for 14 days is planned.

The DXpedition is now 60% funded with contributions and firm pledges to date totaling \$64,000. Each operator contributed \$5000. Additional funding needed by January 1992 is \$40,000.

This may be the last chance to effectively activate this VP8 this solar cycle. All donations big and small will help. All contributions go to: Gerry Branson, 93787 Dorsey Lane, Junction City, Oregon 97448 USA.

CW and RTTY QSLs go to KA6V and SSB QSLs go to AA6BB. Please include generous \$\$\$ contributions with all QSLs.

If anyone wants additional information, or can help with fund raising, call or write to AL, WA3YVN at (407) 727-0201 H.

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### SPECIAL THANKS - SPECIAL THANKS

Go to Dianne - NL7KN for all her work she did in making the table decorations for the Christmas party. She must have started her crocheting right after the last Christmas Party.  
Go to Matt Mannhardt for his great job in the Red Suit.  
Go to those whose names I don't have, but did a super job.

The following is taken from Worldradio.

# HF mobile made easy

A.H. MILLER, VE7KC

Two-meter mobiling is just great; equipment is easy to install and operate ... but for a pleasant change HF adds new fun to driving down the highway. Until you have worked Japan, New Zealand, Mozambique and other such far away places, rolling along at the legal limit, you haven't really experienced the fun of mobiling.

Much has been written about HF mobiling and in view of the multitude of problems there will probably be much more. Having dabbled with trying to achieve a successful operation over the past several years I have just about reached the point of satisfaction. Of course nothing is perfect, but to gain those last few percentage points it could take considerable time and expense.

It is presumed you have a modern state-of-the-art transceiver suitable for the type of installation that will permit operation when you are behind the wheel or in a co-pilot's seat. Hopefully it will have a good noise blanker that will take out that last little bit of ignition noise not eliminated by other means. If you have this kind of set then you really have only two potential major problems: antenna and electrical ignition noise. Of course every installation has its own peculiarities but many of these can be approached in a general manner.

Look at the ignition interference first, as it is probably the most difficult; there are a few items that should receive priority consideration. Each of these may produce a slight

reduction which collectively should be additive. Dependency on the noise blanker is okay to a point; past that you may find with some sets that you may also reduce the signal. With this in mind, leave the noise blanker off and strive for as much noise reduction as possible. When you reach that point and switch the noise blanker on there should be an absolute minimum of ignition noise with no reduction of incoming signal.

Most articles stress bonding, and this is a good place to begin. Before you start this procedure it is suggested you fix up a smaller speaker with a long shielded lead. With this plugged into the transceiver auxiliary speaker output you can monitor your noise reduction progress with the engine running. If you can obtain a good supply of heavy copper braid, excellent. I settled for some easy to obtain and inexpensive copper clad pipe strap. This is available from almost all hardware and plumbing supply shops. When you do your bonding leave some slack in the strapping to permit a little give, or movement, where it is needed.

As you are probably aware, the engine and exhaust systems are quite well insulated from the rest of the vehicle. This is due to the rubber engine mounts and the support hangers holding the muffler and tail pipe. Even the radiator may be insulated by rubber bushings and become a potential problem. With all this in mind, start bonding everything suspect to the frame or body in several places. The engine alone may well be strapped at all four corners.

Very important on some vehicles and not to be overlooked is the exhaust system. Make sure you give this item adequate attention. The whole muffler and tailpipe unit can be a wonderful antenna for radiating igni-

tion noise. It is suggested that you bond the whole assembly to the frame and/or body in three or four places.

The importance of exhaust bonding was drawn to my attention early in the game with a no noise blanker SB 101. In a hurry I set off across Canada with no suppression of any kind and it was a very unhappy mobile situation. In my progress eastward I installed suppressor plugs with little success. Every time I was able to contact another station I would ask for suggestions on how to reduce the horrible racket. On the way home I contacted another mobile whom I could read well because he was running a kilowatt. In reply to my usual question he came right back with "Have you grounded your tail pipe?"

With a quick "Negative," I pulled off to the side of the road, grabbed a clip lead out of the tool box and connected the end of the exhaust to the bumper. Presto! The noise level dropped by at least 50 percent. A word of caution: make sure all connections are clean and the contact is to bare metal.

Getting to the ignition system, the first thing to do is to be sure all the high voltage cables are in good condition. Some of the spark plug leads have a bad reputation for developing an open circuit in the inner conductor. Also be sure the insulation is not leaking. If the wiring is old, it may be a good idea to put in a whole new set of leads. Bad leads may not only create noise problems but could also reduce your engine efficiency.

One of the possible aids in the reduction of ignition noise is the installation of a distributor suppressor. These are usually available wherever automotive parts are sold, and even Radio Shack has them in stock. Just pull the wire from the coil out of the center of the distributor top, plug in the suppressor, then plug the wire from the coil into the suppressor unit. It's worth a try.

If the noise is still above the acceptable level, this is probably the time to buy a GOOD set of suppressor plugs. The "good" cannot be over-emphasized. In my first experience I bought cheap, bargain plugs and not only did they not cure the noise, I was misled into thinking I had other problems.



THE FORGET-ME-DO  
USUALLY FORGETS WHO IS SUPPOSED TO  
GET IT AFTER HIM. THIS GUY CAN TURN A  
ROUNDTABLE INTO A CLOVER LEAF.

## HF Mobile continued



Top to bottom: SWR meter, Yaesu 230R and TS 430R stacked on a swivel plate on the mounting platform. There is a foam rubber cushion between the platform and the van engine cover.

Good suppressor plugs are probably one of the best investments I ever made with respect to successful mobiling.

In my Dodge camper van conversion the TS 430 sits right on top of the engine cover, not four inches from the ignition system and there is hardly a tick. When you can drive down the highway with the noise blanker off and hear the ignition of the other cars passing, you've really got it beat.

The next big item for success is the antenna. Most commercial whips work well, some better than others. Some are more adaptable to a good installation. Let's hope you have the kind that adapts effectively. The one in use on the van camper is a standard Hustler. You may have the same kind and can

visualize some of the recommendations.

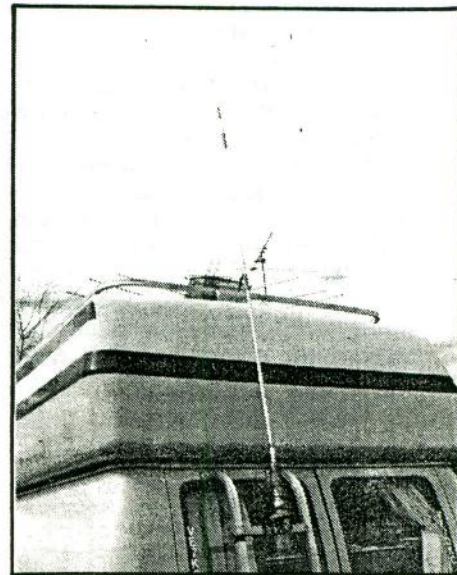
Many articles promote mounting on the rear bumper. This seems to be a popular location as it makes an easy installation, looks good and you don't have to drill any holes in the body. This seems to be the only justification for the location.

It seems logical and from personal experience, the higher the base off the ground the better the results. If you have to make modifications to the antenna mast section, the changes may be warranted. Although not very practical, the ideal location is right in the center of the vehicle roof. With a standard car you don't have many options to consider. Maybe if you look the situation over you may come up with a solution that will let you get the base as high as possible.

My friend with a station wagon found a place for a mounting bracket above the rear tail gate door right at the end of the roof. If you have a van, there is a good spot right above the rear opening doors where the roof starts to curve. On my camperized van this is right behind the fiberglass roof. Any installation where the antenna parallels the body should be avoided if at all possible.

One of the things you will immediately visualize about installing the antenna with a high base location is the height of the top of the whip and the whole thing swaying around, out of control. Maybe you are wondering how many gas station fluorescent tubes you are going to knock out, or trees and wires you will be hitting. Well, you can get around most of this problem in a way you may consider a little unorthodox, but nevertheless quite practical. It is suggested you consider reducing the length of the (Hustler) mast between the base spring and the resonator coil.

You may disagree by questioning the effect on the tuning and radiation. First, the tuning effect is minimal. Length changes made below the resonator are much less drastic than those made above it. Secondly, the shortened mast on 10, 15 and 20M which permits a higher base mount above ground seems to justify the



Optimal antenna location on the van: above resonator spring is 15M resonator with extended whip for 20M operation.

modification. Of course on 40 and 80M the results may be a compromise.

As mentioned previously the antenna uses standard Hustler resonators, but for 15 and 20M the arrangement is definitely not standard. The following suggestion may be better known than I think, but so far I haven't run across it in print. Contacts indicate it is not generally known or used in this part of the world. Actually, the idea came to my attention when I started working an unusually large number of ZS mobiles. It turned out that most of them were using standard Hustlers with the exception that they were using the 15M resonator on 20M. Further inquiry disclosed that the 15M resonator would tune very nicely on 20M by installing a 48 in. upper tuning rod adjusted down a few inches. I must say the results are outstanding with a low and flat SWR across the whole 20M band. There is less heating in the coil because there is less coil, and consequently less loss. In my case the final measurement of the upper rod was approximately 40 inches above the adjusting nut.

The same arrangement was applied to 15M by using the 10M resonator with about a 26 in. upper whip. Again, these measurements can be variable. In both cases the SWR came down to

## HF Mobile continued

almost zero and practically flat across the whole band.

It may take a little hunting, but some of the ham outlets may have a 2M, 5/8 whip that will do the trick. Note this arrangement will not work with the Hustler Jumbo coils, only the standard resonators.

Since most run-of-the-mill SWR meters are not power linear, it is suggested that you tune your whip as follows: set the meter to max forward sensitivity and, with the transmitter on tune or CW, bring the power up slowly until the needle is on the set mark. Now take your SWR reading.

You will find your transmitter loading is minimal and your SWR reading is more accurate.

A good set of quick disconnects are a good investment. They not only save time and trouble when changing bands but also make it easy to remove the antenna at car washes and to avoid theft. Don't forget a resonator spring to protect your coils.

If you experience a high SWR, especially on 75M, try using a coax line between the transmitter and antenna cut to 21 feet, 6 inches. It is understood that the impedance at the base of a mobile whip can be quite low and this length probably improves the

match. If it is too long, just coil up the surplus.

Depending on the location of the antenna, a mobile installation can be quite directive. It has been noticed that, with the antenna near the center of the rear of the vehicle, the best signal is in line and straight ahead. This seems to be more apparent on transmission, as receiving stations will sometimes report a 2 to 3 S-point difference.

So far I have worked several dozen countries on all continents. I've especially had fun during this sunspot cycle, just driving along and easily working DX. □

The following "Poem" is provided courtesy of the Alexandria (VA) Radio Club column in AUTO-CALL, the Official Journal of the Foundation for Amateur Radio.

## RUDOLPH THE RED NOSED NOVICE

RUDOLPH THE RED NOSED NOVICE HAD A VERY SLOPPY FIST,  
AND IF YOU EVER HEARD IT,  
IT'S ONE YOU WOULD SURELY NEVER MISS,  
ALL OF THE OTHER AMATEURS,  
USE TO LAUGH AND CALL HIM LID,  
THEY NEVER LET POOR RUDOLPH,  
TUNE OR DIP THE GRID,  
THEN ONE FOGGY CONTEST EVE,  
THE BAND CAPTAIN CAME TO SAY,  
RUDOLPH WITH YOUR VOICE SO CLEAR,  
WON'T YOU WORK 10 METERS THIS YEAR,  
THEN HOW THE CONTESTORS LOVED HIM,  
AS THEY SHOUTED OUT WITH GLEE,  
RUDOLPH YOUR QSO POINTS,  
WILL GO DOWN IN HISTORY.

(Apologies to all good Reindeer)

AND TO ALL A GOOD NIGHT  
FROM ALEXANDRIA RADIO CLUB

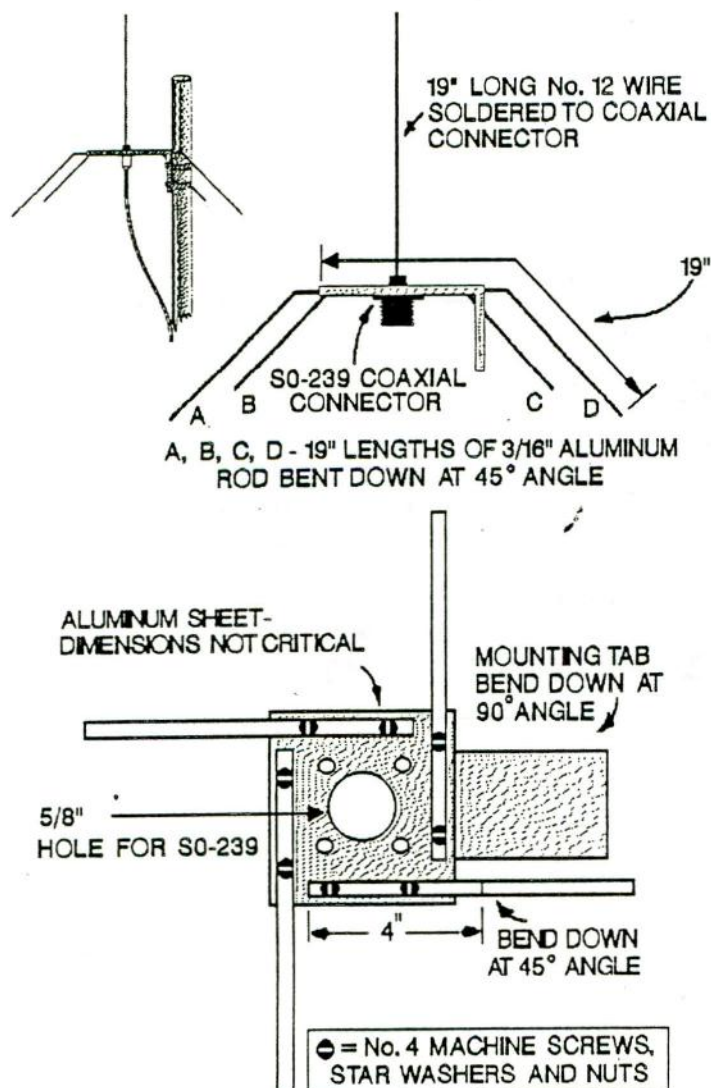
**OVERKILL!!!!**

(73)

A federal appeals court has ruled that ham radio operators are not entitled to absolute protection by FCC statutes enacted to give them special rights to have antennas. In doing so, the court has brought the constitutionality of PRB-1 into question. A California ham, who will be nameless, had successfully argued that he had a right to put up a 51 foot antenna in his back yard and communicate with other hams. A federal District Judge ruled in his favor against a Burlingame, CA ordinance. Instead of being satisfied with this victory, he chose to sue for the return, by the city, of his \$25,000 legal fees. The City had the case appealed to the next court level- Federal Appeals Court. They ruled against him thereby putting the whole PRB-1 situation in peril. Some people just can't leave well enough alone!!  
From Hawaii West ARS "Common Ground"

## BUILD A VHF or UHF ANTENNA

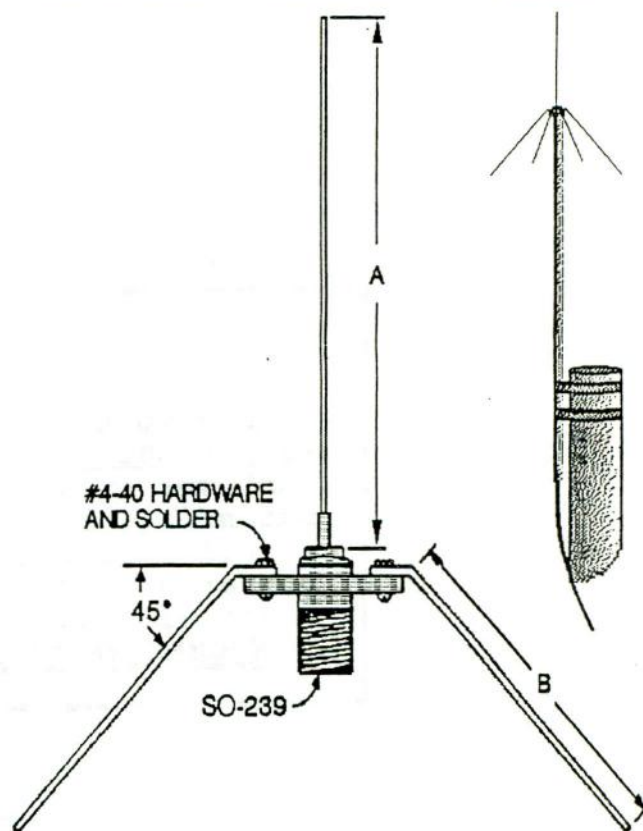
For the FM operator living in the primary coverage area of a repeater the ease of construction and low cost of a quarter-wave ground-plane antenna make it an ideal choice for the Kona side of the Big Island. The choice of construction method will depend on the materials at hand and the desired style of antenna mounting.



The 2-meter model shown in the above figure uses a flat piece of sheet aluminum, to which the radials are connected with machine screws. A 45-degree bend is made in each of the radials. This bend can be made with the aid of an ordinary bench vise. An S0-239 chassis connector is mounted at the center of the aluminum plate with the threaded part of the connector facing down. The vertical portion of the antenna is made of 3/32-inch Brass Rod or No. 12 copper wire soldered directly to the center pin of the S0-239 connector. Radials can be made of the same stock as the vertical, or 3/16-inch Aluminum tubing. A mounting tab has been included in the design of this antenna as part of the aluminum base. Compression-type hose clamps can be used to secure the antenna to the mast.

An alternate version uses a slightly different technique for mounting and sloping the radials. In this case the corners of the aluminum plate are bent down at a 45-degree angle with respect to the remainder of the plate. The four radials are held to the plate with matching machine screws, lockwashers and nuts. As with the first version the vertical portion of the antenna is soldered directly to the S0-239 connector.

A very simple method of construction, shown below, requires nothing more than an S0-239 connector and some No.4-40 hardware (and, if your like me, a little good luck).



FREQUENCY (MHz)	A (Inches)	B (Inches)
146	19-5/16	20-3/16
445	6-3/8	6-5/8

A small loop formed at one end of the radial, is used to attach the radial directly to the mounting holes of the coaxial connector. After the radial is fastened to the S0-239 with 4-40 hardware, a large soldering iron or propane torch is used to solder the radial and the mounting hardware to the coaxial connector. The radials are bent to a 45-degree angle and the vertical portion is soldered to the center pin to complete the antenna. The antenna can be mounted by passing the feed line through a mast of 3/4-inch ID plastic or aluminum tubing. A compression hose clamp can be used to secure the PL-259 connector, attached to the feed line, in the end of the mast. It is wise to apply a liberal amount of Coax Seal or similar material around the area of the center pin of the S0-239, and around the PL-259 connector to prevent water from entering the connector and coax line. '73s

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